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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/572,371

04/20/2006

Jacobus A Loontjens

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EXAMINER

SANDERS, KRIELLION ANTONETTE

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

12/16/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/572,371	<b>Applicant(s)</b> LOONTJENS, JACOBUS A	
	<b>Examiner</b> Kriellion A. Sanders	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6 and 7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/10/08</u> .  | 6) <input type="checkbox"/> Other: _____                          |

Art Unit: 1796

### DETAILED ACTION

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-7 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Matsumura et al, US Patent No. 4,910,265.

See Examples 24-26 wherein 318 parts of diphenyl isophthalate and 122 parts of m-xylylenediamine (compounds which are thought to be obvious reactants to form a copolyamide) were charged into a reactor equipped with a stirrer, and the mixture was heated to 260 degree C .in a stream of nitrogen. The phenol formed was evaporated out of the system. After 60 minutes, 40 parts of 4, 4'-diaminodiphenylmethane was added to the reaction product, and further reacted for 60 minutes. The resulting polymer had a viscosity of 0.22 and a heat distortion temperature of 181.degree. C. Then, 100 parts of the polymer and 2,2,-m-phenylenebis (5,6-dihydro-4H-1,3-oxazine) in the amount indicated in Table 5 were melt-mixed at 260 degree C. in a twin-screw extruder.

Art Unit: 1796

2. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumura et al, US Patent No. 4,910,265 as applied to claims 1-7 above and further in view of Harashina et al, PCT/JP02/12405 equivalent to US PG Pub 2004/0254270. The PG Pub reference is used for translation. The Japanese reference is not submitted herewith.

Harashina et al discloses polyester series resin or a polyamide series resin 1 composition comprising a flame retardant and a flame retardant assistant compound that may be an oxazole corresponding to those of applicant's claims. The patented components are used in amounts overlapping the presently claimed amounts. The compositions are produced by extrusion molding. See paragraphs 0325, 0337, 0338, 0339, 0341, 0384 and claims 1 and 13.

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to extrude the compositions in a single or twin screw extruder at a temperature of 100 degrees C. in the manner taught by Harashina et al.

### ***Response to Arguments***

3. Applicant's arguments filed 10/10/2008 have been fully considered but they are not persuasive.

4. Applicant argues that amended claim 1 patentably differs from Matsumura (USP 4,910,265) in that the polymers of claim 1 have carboxyl groups, with which the oxazine rings react, and that the oxazine compound is monofunctional. Additionally applicant states that the reaction is carried out in an extruder above 100°C. Applicant also avers that the polymers of Matsumura are not carboxyl functional resins, only hydroxyl and amino functional resins and that the thermoset resins of Matsumura are prepared in a reaction vessel -- not an extruder.

Art Unit: 1796

5. These arguments are not persuasive in that The patented invention is directed to a process comprising reacting an organic compound containing at least two groups selected from alcoholic hydroxyl and aromatic amino groups (A) and (B) a polycyclic iminoether. The polymers may be polyamides or polyesters. Therefor, patentee discloses the use of both polyamide and polyesters. See specifically, col. 8, line 67 through col. 9, line 18. Matsumura et al teaches applicant's specific oxazine compounds at col. 6, lines 66 and 67 and col. 7, line 53 through col. 8, line 12. Applicant's specific oxazines are encompassed by patentee. Examples 30-32 of the patent indicate that polymer and oxazine are mixed in an extruder at temperatures at around 260 C. Also see col. 14, line 67 through col. 15, line 42.

6. Matsumura et al also indicates that such technology is old in the art in the background of the invention where he references Japanese patent No. 89,727/1987 wherein a bisoxazoline is mixed with a polycarboxylic acid at a temperature between 100 and 250 C.

7. According to applicant pending claim 1 also differs from Harashina (US 2004/0254270) in that it does not disclose carboxyl functional resins, or the reaction thereof with monofunctional oxazines in an extruder above 100°C.

8. Applicant states that pending claim 1 is suggested to be novel in view of both Matsumura and Harashina. Pending claim 1 is also considered by applicant to be patentably unobvious in view of Matsumura and Harashina because Matsumura is focused on the preparation of thermoset resins. Harashina is focused on the preparation of flame retardant compounds. Neither of these publications is therefore focused on improvement of hydrolytic stability with absence or reduction of discoloration. Patentee states that neither publication would be consulted by an ordinarily skilled person to address such a problem, and neither publication provides any

Art Unit: 1796

incentive to do so. And even if they would be combined, this would not lead to a modification whereby the hydroxyl groups or amine groups are changed into carboxyl groups and the 2 or higher functional oxazine groups are changed into mono-functional groups as defined by the present applicants' claims.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Harashina et al. is relied upon to teach extrusion techniques, a process step also taught by Matsumura et al. It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to extrude the compositions in a single or twin screw extruder at a temperature of 100 degrees C. in the manner taught by Harashina et al.

9. .

10. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., improvement of hydrolytic stability with absence or reduction of discoloration) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

***Information Disclosure Statement***

Applicant's International Search Report has been considered and form 1449 submitted 10/10/08 has been signed by the examiner.

***Conclusion***

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kriellion A. Sanders whose telephone number is 571-272-1122. The examiner can normally be reached on Monday through Thursday 8:30am-7:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1796

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kriellion A. Sanders/

Primary Examiner, Art Unit 1796

Kriellion A. Sanders  
Primary Examiner  
Art Unit 1796

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